

# Chapter 21

## A Hybrid Analysis of E-Learning Types and Knowledge Sharing Measurement Indicators: A Model for E-Learning Environments

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### ABSTRACT

*E-learning as a method of effective transference of knowledge is being widely used. This chapter introduces a conceptual model that shows administrators/directors of e-learning environments how to recognize and utilize different sets of knowledge sharing indicators (a combination of individual, social, organizational, and technical indicators) to enhance the quality of learning in e-learning environments. A model in which different types of e-learning can be employed is introduced and elaborated. Then, several knowledge-sharing indicators that have the potential of facilitating and enhancing the e-learning environment are presented. Finally, the conceptual model of knowledge sharing indicators to facilitate different types of e-learning environments is provided and discussed.*

### INTRODUCTION

During the past decade information technology has led to an evolution in many fields, including learning, which should be seen as a continuous process. E-learning as an evolution in the process of learning is currently being widely adapted and used all over the world.

Moreover, knowledge sharing currently plays a significant role in the process of learning as it is central to the activities most relevant to the e-learning process. If we know which knowledge sharing indicators facilitate and enhance the quality of learning in online environments, it helps us to have a more efficient and progressive environment from which to benefit.

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## **LITERATURE REVIEW**

### **E-Learning**

No single agreed definition of e-learning can be found among scholars (Allen & Seaman, 2007; An et al., 2009; Chen, 2008; Lee & Lee, 2008; Mitchell & Honore, 2007; Singh et al., 2004; Smith & Kurthen, 2007; Taran, 2006; Vernadakis et al., 2011), but “it generally refers to internet based forms of learning, rather than face to face interaction and where traditional methods of learning are supported by online resources” (McKenzie & Murray, 2010, p. 17). Nowadays online instruction is widely adopted in universities (Huang et al., 2011) and also in many institutions (Chen, 2008) which want to keep their staff up to date, mainly because of the rapid increase in internet use (Chen, 2008; Huang et al., 2011).

### **Advantages of E-Learning**

The notion of e-learning is not new; during the past decade many advantages have been identified and documented by different researchers. According to McKenzie & Murray (2010) there are various reasons for using e-learning, including anonymity. They argue that since people have the opportunity to withhold their real names in online communication, “this nature of the technology used in e-learning may actually facilitate the identity shift that underpins learning” (p. 18). This finding seems to be reasonable, especially given that certain subjects are taboo in some societies or forbidden by some governments. E-learning increases motivation by allowing instructors to communicate information in a more engaging fashion (Wang, 2003) and by exploiting technology and personalizing information (Mohammadi et al., 2011). It also fosters self-paced learning whereby students can learn at their own speed (Mohammadi et al., 2011; Wang, 2003; Zhang et al., 2004). Table 1 reviews the advantages of e-learning.

### **Types of E-Learning**

Several types of e-learning and their combinations are currently being employed (Chen, 2008). The following are the most cited types of e-learning:

- Web-enhanced or web-facilitated
- Blended or hybrid
- Fully online or all online
- Asynchronous (offline instruction)
- Synchronous (online instruction)

#### **Web-Enhanced or Web-Facilitated**

Web-enhanced or web-facilitated courses usually involve face-to-face interaction, in which only course outlines and its announcements are being uploaded for the learners to have online access to (Smith & Kurthen, 2007; Vernadakis et al., 2011). One to 29 percent of the content in this type of learning is delivered online (Allen & Seaman, 2007).

#### **Blended or Hybrid**

A blended or hybrid learning course model consists of face-to-face classroom interaction and online computer-mediated communication (Mitchell & Honore, 2007; Chen, 2008; Vernadakis et al., 2011). “The online portion of this learning can be delivered in various ways, such as online tutorials, documents, interactive tests, presentations, video, audio, animations and many other types of interactive media” (Chen, 2008, p.46). Learning environments in which 30 to 79 percent of content and activities delivered online are categorized as blended or hybrid courses (Allen & Seaman, 2007).

#### **All Online, Fully Online, or Completely Web-Based**

All online, fully online, or completely Web-based courses “usually refer to distance education through online media” (Vernadakis et al., 2011,

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